

Product: 2007-2008 Polaris IQ SNOWMOBILE Motorcycle Service Repair Workshop Manual

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2007 - 2008 IQ SNOWMOBILE SERVICE MANUAL

FOREWORD

This service manual is designed primarily for use by certified Polaris Master Service Dealer technicians in a properly equipped shop and should be kept available for reference. All references to left and right side of the vehicle are from the operator's perspective when seated in a normal riding position.

Some procedures outlined in this manual require a sound knowledge of mechanical theory, tool use, and shop procedures in order to perform the work safely and correctly. Technicians should read the text and be familiar with service procedures before starting the work. Certain procedures require the use of special tools. Use only the proper tools as specified.

Comments or suggestions about this manual may be directed to: Service Publications Dept. @ Polaris Sales Inc. 2100 Hwy 55 Medina Minnesota 55340.

2007 - 2008 IQ Snowmobile Service Manual PN 9921044

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Product: 2007-2008 Polaris IQ SNOWMOBILE Motorcycle Service Repair Workshop Manual
UNDERSTANDING MANUAL SAFETY LABELS AND DIRECTIONS

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Throughout this manual, important information is brought to your attention by the following symbols:



SAFETY ALERT WARNING indicates a potential hazard that may result in severe injury or death to the operator, bystander or person(s) inspecting or servicing the vehicle.



SAFETY ALERT CAUTION indicates a potential hazard that may result in minor personal injury or damage to the vehicle.



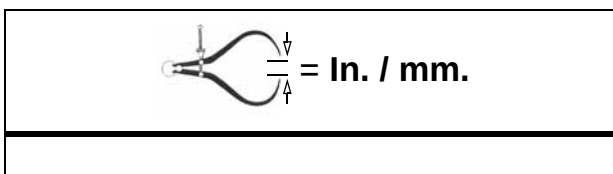
CAUTION indicates special precautions that must be taken to avoid vehicle damage or property damage.

NOTE:

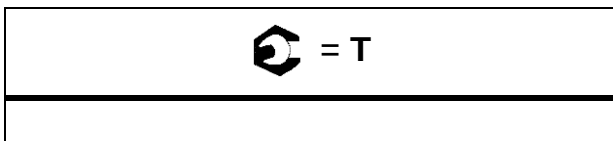
NOTE provides key information by clarifying instructions.

IMPORTANT:

IMPORTANT provides key reminders during disassembly, assembly and inspection of components.



MEASUREMENT provides a key for a determined measurement specification.



TORQUE provides a key for a required torque value.

TRADEMARKS

POLARIS ACKNOWLEDGES THE FOLLOWING PRODUCTS MENTIONED IN THIS MANUAL:

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Model Specifications

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Model Specifications

SPECIFICATIONS

2007 600 HO IQ

Model Number: S07PP6FS (A) (B)

Engine

Engine Type	Liberty Liquid-Cooled / Case Reed Induction
Model Number	S3273-6044-PF6F
Displacement / # Cylinders	599cc / 2
Bore (inches/mm)	3.04 / 77.25
Stroke (inches/mm)	2.52 / 64
Piston to Cylinder Clearance (inches/mm)	.004 - .006 / .105 - .159
Installed Ring Gap (inches / mm)	.014 - .020 / .356 - .508
Operating RPM ± 200	8100
Idle RPM	1500
Engagement RPM ± 200	3800
Exhaust Valve Spring	Pink

Carburetor Settings

Type	Mikuni TM38
Main Jet	420
Pilot Jet	50
Jet Needle/Clip position	9DGN6-57 / 2
Needle Jet	P-8
Throttle Gap (Under Cutaway) (in/mm)	0.08 / 2.1
Cutaway	1.5 Notch
Valve Seat	1.5
Starter Jet	145
Pilot Air Jet	.6
Fuel screw (Turns Out)	1.25
Recommended Fuel Octane (R+M/2)	91 (Non-Oxygenated)

Carburetor Jetting

Altitude Meters (feet)	Ambient Temperature							
	< -25°F / < -35°C	-30°F to -10°F / -34°C to -23°C	-15°F to +5°F / -26°C to -15°C	0°F to +20°F / -18°C to +7°C	+15°F to +35°F / -9°C to +2°C	+30°F to +50°F / 1°C to +10°C	+45°F to +65°F / +7°C to +18°C	> +60°F / > +16°C
0-600 (0-2000)	440 #3	430 #3	420 #2	400 #2	390 #2	380 #2	370 #2	360 #1
600-1200 (2000-4000)	410 #3	400 #3	390 #2	370 #2	360 #2	350 #2	340 #1	330 #1
1200-1800 (4000-6000)	370 #3	360 #2	350 #2	340 #2	330 #2	320 #1	310 #1	300 #1
1800-2400 (6000-8000)	340 #3	320 #2	310 #2	300 #2	280 #2	280 #1	270 #1	260 #1
2400-3000 (8000-10000)	310 #2	300 #2	290 #2	280 #1	270 #1	260 #1	250 #1	240 #1
3000-3700 (10000-12000)	290 #2	280 #2	270 #1	250 #1	240 #1	230 #1	220 #1	210 #1

When using non oxygenated fuel with a RON greater than 93, decrease the main jet number in the above chart by 10 and raise the E-clip one position. If the chart recommends clip #1, install washer on top when using RON 93.

Clutch Settings

ALTITUDE meters (feet)	DRIVE CLUTCH		DRIVEN CLUTCH		
	Shift Weight	Clutch Spring	Clutch Spring	Driven Helix	Gearing
0-600 (0-2000)	10-62	BLK / GRN (120 / 340) (7042083)	RED/BLK (140 / 240) (7043058)	64/42.36 LW ER	23:39-76
600-1200 (2000-4000)	10-60			56/42 - .36 LW ER	22:39-76
1200-1800 (4000-6000)	10-58				22:40-76
1800-2400 (6000-8000)	10-56				
2400-3000 (8000-10000)	10-54				20:41-76
3000-3600 (10000-12000)	10-AL				

Drive Clutch Bolt Torque: 50 lb.ft. (68Nm)

General

Width (in/cm)	48 / 121.9
Length (in/cm)	115 / 292.1
Height (in/cm)	48 / 121.9
Estimated Dry Weight (lb/kg)	475 / 215.7
Fuel (Gallons / Liters)	10.8 / 40.9
Oil (Quarts / Liters)	3.4 / 3.2
Cooling System Capacity (Quarts / Liters)	6.3 / 6
Brake Fluid	DOT 4
Drive Belt Part Number	3211080
Width (inches / cm)	1.438 / 3.65
Side Angle	28_
Circumference (inches / cm)	46.625 / 118.4
Center Distance (inches / cm)	11.5 / 29.2
Chaincase Center Distance (inches)	8.373
Top Gear (Stock)	23
Bottom Gear (Stock)	39
Chain (Stock)	76
Gear Lube	Polaris Synthetic
Capacity (oz / ml)	11 / 325.3
Reverse System	Perc

Electrical

Alternator Output Operating Voltage Watts @ 13.5 Vdc (Total)	13.5 - 14.5 Vdc 280
Ignition Timing	26_ @3500 RPM (TPS Un-plugged)
Spark Plug Gap in.(mm)	.027 (.70)
Spark Plug	Champion RN57YCC
CDI Marking	4011033
Flywheel Marking	4010677

Track

Width - Inches (cm)	15 (38)
Length - Inches (cm)	121 (307)
Lug Height - Inches (cm)	1.0 / (2.5) 1.25 (3.175) - Option
Track tension sag in/cm with 10 lbs/4.54kg placed 16 in/ 40cm ahead of rear idler shaft	7/8" - 1-1/8"(2.2 - 2.9cm)

Front Suspension

Suspension Type	IQ 42.5
Shocks	Ryde FX HPG w/IFP (STD.) (Rebuildable) Fox Compression Adj. Remote Reservoir HPG (OPT.) (Rebuildable)
IFS Spring Rate lbs/in (N/mm)	100 (17.5)
Spring Installed Length Inches (cm)	10.55 (26.8)
Front Vertical Travel Inches (cm)	10 (25.4)
Suspension Setup Width Inches (cm)	41.16 (104.54)
Camber Inches (cm)	2.25 ± 0.31 (57 ± 7.9)
Toe Out Inches (cm)	0 - 0.12 (0 - 0.31)

Rear Suspension

Suspension Type	IQ 121
Front Track Shock (FTS)	Ryde FX HPG w/IFP (STD.) (Rebuildable) Fox HPG w/IFP (OPT.) (Rebuildable)
FTS Spring Rate lbs/in (N/mm)	130 - 270 (23 - 47)
FTS Spring Installed Length Inches (cm)	7.97 (20.2)
Rear Track Shock (RTS)	Fox PS5 w/IFP (STD.) (Rebuildable) Fox Compression Adjustable Remote Reservoir HPG (OPT.) (Rebuildable)
Torsion Spring Diameter Tail Angle	.374 80_
Rear Travel Inches (cm)	13.9 (35.3)

Model Specifications

2007 600 HO Switchback

Model Number: S07PS6FS (A)

Engine

Engine Type	Liberty Liquid-Cooled / Case Reed Induction
Model Number	S3273-6044-PF6F
Displacement / # Cylinders	599cc / 2
Bore (inches/mm)	3.04 / 77.25
Stroke (inches/mm)	2.52 / 64
Piston to Cylinder Clearance (inches/mm)	.004 - .006 / .105 - .159
Installed Ring Gap (inches / mm)	.014 - .020 / .356 - .508
Operating RPM $\pm$ 200	8100
Idle RPM	1500
Engagement RPM $\pm$ 200	3800
Exhaust Valve Spring	Pink

Carburetor Settings

Type	Mikuni TM38
Main Jet	420
Pilot Jet	50
Jet Needle/Clip position	9DGN6-57 / 2
Needle Jet	P-8
Throttle Gap (Under Cutaway) (in/mm)	0.08 / 2.1
Cutaway	1.5 Notch
Valve Seat	1.5
Starter Jet	145
Pilot Air Jet	.6
Fuel screw (Turns Out)	1.25
Recommended Fuel Octane (R+M/2)	91 (Non-Oxygenated)

Carburetor Jetting

Altitude Meters (feet)	Ambient Temperature							
	< -25°F / < -35°C	-30°F to -10°F / -34°C to -23°C	-15°F to +5°F / -26°C to -15°C	0°F to +20°F / -18°C to -7°C	+15°F to +35°F / -9°C to +2°C	+30°F to +50°F / 1°C to +10°C	+45°F to +65°F / +7°C to +18°C	> +60°F / > +16°C
0-600 (0-2000)	440 #3	430 #3	420 #2	400 #2	390 #2	380 #2	370 #2	360 #1
600-1200 (2000-4000)	410 #3	400 #3	390 #2	370 #2	360 #2	350 #2	340 #1	330 #1
1200-1800 (4000-6000)	370 #3	360 #2	350 #2	340 #2	330 #2	320 #1	310 #1	300 #1
1800-2400 (6000-8000)	340 #3	320 #2	310 #2	300 #2	280 #2	280 #1	270 #1	260 #1
2400-3000 (8000-10000)	310 #2	300 #2	290 #2	280 #1	270 #1	260 #1	250 #1	240 #1
3000-3700 (10000-12000)	290 #2	280 #2	270 #1	250 #1	240 #1	230 #1	220 #1	210 #1

When using non oxygenated fuel with a RON greater than 93, decrease the main jet number in the above chart by 10 and raise the E-clip one position. If the chart recommends clip #1, install washer on top when using RON 93.

Clutch Settings

ALTITUDE meters (feet)	DRIVE CLUTCH		DRIVEN CLUTCH		
	Shift Weight	Clutch Spring	Clutch Spring	Driven Helix	Gearing
0-600 (0-2000)	10-62	BLK / GRN (120 / 340) (7042083)	RED/BLK (140 / 240) (7043058)	64/42-.36 LW ER	22:39-76
600-1200 (2000-4000)	10-60			56/42 - .36 LW ER	
1200-1800 (4000-6000)	10-58				22:40-76
1800-2400 (6000-8000)	10-56				20:41-76
2400-3000 (8000-10000)	10-54				
3000-3600 (10000-12000)	10-AL				
Drive Clutch Bolt Torque: 50 lb.ft. (68Nm)					

General

Width (in/cm)	48 / 121.9
Length (in/cm)	125 / 317.5
Height (in/cm)	48 / 121.9
Estimated Dry Weight (lb/kg)	483 / 219.3
Fuel (Gallons / Liters)	10.8 / 40.9
Oil (Quarts / Liters)	3.4 / 3.2
Cooling System Capacity (Quarts / Liters)	6.3 / 6
Brake Fluid	DOT 4
Drive Belt Part Number	3211080
Width (inches / cm)	1.438 / 3.65
Side Angle	28_
Circumference (inches / cm)	46.625 / 118.4
Center Distance (inches / cm)	11.5 / 29.2
Chaincase Center Distance (inches)	8.373
Top Gear (Stock)	22
Bottom Gear (Stock)	39
Chain (Stock)	76
Gear Lube	Polaris Synthetic
Capacity (oz / ml)	11 / 325.3
Reverse System	Perc

Electrical

Alternator Output Operating Voltage Watts @ 13.5 Vdc (Total)	13.5 - 14.5 Vdc 280
Ignition Timing	26_ @3500 RPM (TPS Un-plugged)
Spark Plug Gap in.(mm)	.027 (.70)
Spark Plug	Champion RN57YCC
CDI Marking	4011033
Flywheel Marking	4010677

Track

Width - Inches (cm)	15 (38)
Length - Inches (cm)	144 (366)
Lug Height - Inches (cm)	1.25 (3.175) (STD.) 1.50 (3.8) (OPT.)
Track tension sag in/cm with 10 lbs/4.54kg placed 16 in/ 40cm ahead of rear idler shaft	3/8" - 1/2" (1 - 1.3cm)

Front Suspension

Suspension Type	IQ 42.5
Shocks	Fox HPG w/IFP (STD.) (Rebuildable) Fox Compression Adj. Remote Reservoir HPG (OPT.) (Rebuildable)
IFS Spring Rate lbs/in (N/mm)	100 (17.5)
Spring Installed Length Inches (cm)	10.55 (26.8)
Front Vertical Travel Inches (cm)	10 (25.4)
Ski Center Distance Inches (cm)	42.5 (108)
Camber Inches (cm)	2.25 ± 0.31 (57 ± 7.9)
Toe Out Inches (cm)	0 - 0.12 (0 - 0.31)

Rear Suspension

Suspension Type	IQ 144
Front Track Shock (FTS)	Fox HPG w/IFP (Rebuildable)
FTS Spring Rate lbs/in (N/mm)	170 (30)
FTS Spring Installed Length Inches (cm)	7.25 (18.4)
Rear Track Shock (RTS)	Fox Compression Adjustable Remote Reservoir HPG (Rebuildable)
Torsion Springs	.359 Square / 77_ (Stock) .347 / 77_ / (Soft) - PN 7041627 - 067 - PN 7041628 - 067 .375 / 77_ / (Firm) - PN 7041942 - 067 - PN 7041943 - 067
Rear Travel Inches (cm)	13.9 (35.3)

Model Specifications

2007 600 HO RMK

Model Number:
144 = S07PK6FS / S07PK6FE
155 = S07PM6FS (A)

Engine

Engine Type	Liberty Liquid-Cooled / Case Reed Induction
Model Number	S3273-6044-PF6F
Displacement / # Cylinders	599cc / 2
Bore (inches/mm)	3.04 / 77.25
Stroke (inches/mm)	2.52 / 64
Piston to Cylinder Clearance (inches/mm)	.004 - .006 / .105 - .159
Installed Ring Gap (inches / mm)	.014 - .020 / .356 - .508
Operating RPM $\pm$ 200	8100
Idle RPM	1500
Engagement RPM $\pm$ 200	3800
Exhaust Valve Spring	Pink

Carburetor Settings

Type	Mikuni TM38
Main Jet	280
Pilot Jet	50
Jet Needle/Clip position	9DGN6-57 / 1
Needle Jet	P-8
Throttle Gap (Under Cutaway) (in/mm)	0.13 / 3.2
Cutaway	2.5
Valve Seat	1.5
Starter Jet	145
Pilot Air Jet	.6
Fuel screw (Turns Out)	1
Recommended Fuel Octane (R+M/2)	91 (Non-Oxygenated)

Carburetor Jetting

Altitude Meters (feet)	Ambient Temperature							
	< -25°F / < -35°C	-30°F to -10°F / -34°C to -23°C	-15°F to +5°F / -26°C to -15°C	0°F to +20°F / -18°C to -7°C	+15°F to +35°F / -9°C to +2°C	+30°F to +50°F / 1°C to +10°C	+45°F to +65°F / +7°C to +18°C	> +60°F / > +16°C
0-600 (0-2000)	440 #3	430 #3	420 #2	400 #2	390 #2	380 #2	370 #2	360 #1
600-1200 (2000-4000)	410 #3	400 #3	390 #2	370 #2	360 #2	350 #2	340 #1	330 #1
1200-1800 (4000-6000)	370 #3	360 #2	350 #2	340 #2	330 #2	320 #1	310 #1	300 #1
1800-2400 (6000-8000)	340 #3	320 #2	310 #2	300 #2	280 #1	280 #1	270 #1	260 #1
2400-3000 (8000-10000)	310 #2	300 #2	290 #2	280 #1	270 #1	260 #1	250 #1	240 #1
3000-3700 (10000-12000)	290 #2	280 #2	270 #1	250 #1	240 **	230 **	220 **	210 **

** = Clip in # 1 position with washer placed on top of clip. When using non-oxygenated fuel with a RON greater than 93, decrease the main jet number in the above chart by 10 and raise the E-clip one position. If the chart recommends **, do nothing with the clip when using RON 93.

Clutch Settings

ALTITUDE meters (feet)	DRIVE CLUTCH		DRIVEN CLUTCH		
	Shift Weight	Clutch Spring	Clutch Spring	Driven Helix	Gearing
0-600 (0-2000)	10-62	BLK / GRN (120 / 340) (7042083)	RED/BLK (140 / 240) (7043058)	64/42-.36 LW ER	19:41-76
600-1200 (2000-4000)	10-60			56/42 - .36 LW ER	
1200-1800 (4000-6000)	10-58				
1800-2400 (6000-8000)	10-56				
2400-3000 (8000-10000)	10-54				
3000-3600 (10000-12000)	10-AL				
Drive Clutch Bolt Torque: 50 lb.ft. (68Nm)					

General

Width (in/cm)	46.5 / 118.1
Length (in/cm)	144 = 125 / 318 155 = 130 / 330.2
Height (in/cm)	49 / 124.5
Estimated Dry Weight (lb/kg)	144 = 472 / 214.3 155 = 478 / 217
Fuel (Gallons / Liters)	12 / 45.4
Oil (Quarts / Liters)	3.4 / 3.2
Cooling System Capacity (Quarts / Liters)	6.3 / 6
Brake Fluid	DOT 4
Drive Belt Part Number	3211115
Width (inches / cm)	1.460 / 3.7
Side Angle	26_
Circumference (inches / cm)	46.77 / 118.8
Center Distance (inches / cm)	11.5 / 29.2
Chaincase Center Distance (inches)	8.373
Top Gear (Stock)	19
Bottom Gear (Stock)	41
Chain (Stock)	76
Gear Lube Capacity (oz / ml)	Polaris Synthetic 11 / 325.3
Reverse System	Perc

Electrical

Alternator Output Operating Voltage Watts @ 13.5 Vdc (Total)	13.5 - 14.5 Vdc 280
Ignition Timing	26_ @3500 RPM (TPS Un-plugged)
Spark Plug Gap in.(mm)	.027 (.70)
Spark Plug	Champion RN57YCC
CDI Marking	4011033
Flywheel Marking	4010677

Track

Width - Inches (cm)	15 (38)
Length - Inches (cm)	144 (325) 155 (393.7)
Lug Height - Inches (cm)	2.0(5) or 2.4(6.1)
Track tension sag in/cm with 10 lbs/4.54kg placed 16 in/ 40cm ahead of rear idler shaft	3/8" - 1/2" (1 - 1.3cm)

Front Suspension

Suspension Type	IQ RMK Adjustable
Shocks	Ryde FX Compression Adjustable (STD.) Walker Evans Air (OPT.) (Rebuildable)
IFS Spring Rate lbs/in (N/mm)	100 (17.5)
Spring Installed Length Inches (cm)	10.35 (26.3)
WE Air Oil Volume	95cc
WE Air Nitrogen Charge Stock Optional	215 psi 220 - 225 psi
Front Vertical Travel Inches (cm)	9 (22.9)
Ski Center Distance Inches (cm)	39(99.1) / 40(101.6) / 41(104.1)
Camber Inches (cm)	2.17 ± 0.31 (55 ± 7.9)
Toe Out Inches (cm)	0 - 0.12 (0 - 0.31)

Rear Suspension

Suspension Type	IQ 144 / 155
Front Track Shock (FTS)	Ryde FX (STD.) Walker Evans Air (OPT.)
FTS Spring Rate lbs/in (N/mm)	190 (33)
FTS Spring Installed Length Inches (cm)	7.4 (18.8)
Rear Track Shock (RTS)	Ryde FX (STD.) Walker Evans Air (OPT.) (Rebuildable)
WE Air Oil Volume	70cc
WE Air Nitrogen Charge Stock Optional	215 psi 210 - 220 psi
Torsion Springs	.359 Square / 77_ (Stock) .347 / 77_ / (Soft) - PN 7041627 - 067 - PN 7041628 - 067 .375 / 77_ / (Firm) - PN 7041942 - 067 - PN 7041943 - 067
Rear Travel Inches (cm)	144 = 14.5(36.8) 155 = 15.5(39.4)

Model Specifications

2007 600 HO IQ CFI

Model Number: S07PP6HS (A) (B)

Engine

Engine Type	Liberty Liquid-Cooled / Case Reed Induction
Model Number	S3206-6044-PF6H
Displacement / # Cylinders	599cc / 2
Bore (inches/mm)	3.04 / 77.25
Stroke (inches/mm)	2.52 / 64
Piston to Cylinder Clearance (inches/mm)	.004 - .006 / .105 - .159
Installed Ring Gap (inches / mm)	.014 - .020 / .356 - .508
Operating RPM $\pm$ 200	8250
Idle RPM	1700
Engagement RPM $\pm$ 200	3800
Exhaust Valve Spring	Purple

Fuel Delivery

Type	Cleanfire Direct Injection
Throttle Body Marking	1203213
Throttle Body Bore	46mm
TPS Voltage @ Idle	0.95 +/- 0.01 Vdc
Fuel Pressure - PSI (bar)	58 (4.0)
Recommended Fuel Octane (R+M/2)	91 Non-Oxygenated

Clutch Settings

ALTITUDE meters (feet)	DRIVE CLUTCH		DRIVEN CLUTCH		
	Shift Weight	Clutch Spring	Clutch Spring	Driven Helix	Gearing
0-600 (0-2000)	10-62	BLK / GRN (120 / 340) (7042083)	RED/BLK (140 / 240) (7043058)	64/42.36 LW ER	23:39-76
600-1200 (2000-4000)	10-60			56/42 - .36 LW ER	22:39-76
1200-1800 (4000-6000)	10-58				22:40-76
1800-2400 (6000-8000)	10-56				
2400-3000 (8000-10000)	10-54				20:41-76
3000-3600 (10000-12000)	10-AL				
Drive Clutch Bolt Torque: 80 lb.ft. (108Nm)					

General

Width (in/cm)	48 / 121.9
Length (in/cm)	115 / 292.1
Height (in/cm)	48 / 121.9
Estimated Dry Weight (lb/kg)	485 / 220.2
Fuel (Gallons / Liters)	11.7 / 44.3
Oil (Quarts / Liters)	3.4 / 3.2
Cooling System Capacity (Quarts / Liters)	6.3 / 6
Brake Fluid	DOT 4
Drive Belt Part Number	3211080
Width (inches / cm)	1.438 / 3.65
Side Angle	28_
Circumference (inches / cm)	46.625 / 118.4
Center Distance (inches / cm)	11.5 / 29.2
Chaincase Center Distance (inches)	8.373
Top Gear (Stock)	23
Bottom Gear (Stock)	39
Chain (Stock)	76
Gear Lube	Polaris Synthetic
Capacity (oz / ml)	11 / 325.3
Reverse System	Perc

Electrical

Alternator Output Operating Voltage Watts @ 13.5 Vdc (Total)	13.5 - 14.5 Vdc 400
Ignition Timing	18_ @1700 RPM Coolant Temp = 120_F (49_C)
Spark Plug Gap in.(mm)	.027 (.70)
Spark Plug	Champion RN57YCC

Track

Width - Inches (cm)	15 (38)
Length - Inches (cm)	121 (307)
Lug Height - Inches (cm)	1.0 (5) (STD.) 1.25 (3.175) (OPT.)
Track tension sag in/cm with 10 lbs/4.54kg placed 16 in/ 40cm ahead of rear idler shaft	7/8" - 1-1/8"(2.2 - 2.9cm)

Front Suspension

Suspension Type	IQ 42.5
Shocks	Ryde FX HPG w/IFP (STD.) (Rebuildable) Fox Compression Adj. Remote Reservoir HPG (OPT.) (Rebuildable)
IFS Spring Rate lbs/in (N/mm)	100 (17.5)
Spring Installed Length Inches (cm)	10.55 (26.8)
Front Vertical Travel Inches (cm)	10 (25.4)
Ski Center Distance Inches (cm)	42.5 (108)
Camber Inches (cm)	2.25 ± 0.31 (57 ± 7.9)
Toe Out Inches (cm)	0 - 0.12 (0 - 0.31)

Rear Suspension

Suspension Type	IQ 121
Front Track Shock (FTS)	Ryde FX HPG w/IFP (STD.) (Rebuildable) Fox HPG w/IFP (OPT.) (Rebuildable)
FTS Spring Rate lbs/in (N/mm)	130 - 270 (2.3 - 4.8)
FTS Spring Installed Length Inches (cm)	7.97 (20.2)
Rear Track Shock (RTS)	Fox PS5 w/IFP (STD.) (Rebuildable) Fox Compression Adjustable Remote Reservoir HPG (OPT.) (Rebuildable)
Torsion Spring Diameter Tail Angle	.374 80_
Rear Travel Inches (cm)	13.9 (35.3)

Model Specifications

2007 600 HO Switchback CFI

Model Number: S07PS6HS (A) (B)

Engine

Engine Type	Liberty Liquid-Cooled / Case Reed Induction
Model Number	S3206-6044-PF6H
Displacement / # Cylinders	599cc / 2
Bore (inches/mm)	3.04 / 77.25
Stroke (inches/mm)	2.52 / 64
Piston to Cylinder Clearance (inches/mm)	.004 - .006 / .105 - .159
Installed Ring Gap (inches / mm)	.014 - .020 / .356 - .508
Operating RPM $\pm$ 200	8250
Idle RPM	1700
Engagement RPM $\pm$ 200	3800
Exhaust Valve Spring	Purple

Fuel Delivery

Type	Cleanfire Direct Injection
Throttle Body Marking	1203213
Throttle Body Bore	46mm
TPS Voltage @ Idle	0.95 +/- 0.01 Vdc
Fuel Pressure - PSI (bar)	58 (4.0)
Recommended Fuel Octane (R+M/2)	91 Non-Oxygenated

Clutch Settings

ALTITUDE meters (feet)	DRIVE CLUTCH		DRIVEN CLUTCH		
	Shift Weight	Clutch Spring	Clutch Spring	Driven Helix	Gearing
0-600 (0-2000)	10-62	BLK / GRN (120 / 340) (7042083)	RED/BLK (140 / 240) (7043058)	64/42.36 LW ER	22:39-76
600-1200 (2000-4000)	10-60			56/42 - .36 LW ER	
1200-1800 (4000-6000)	10-58				22:40-76
1800-2400 (6000-8000)	10-56				
2400-3000 (8000-10000)	10-54				
3000-3600 (10000-12000)	10-AL				
Drive Clutch Bolt Torque: 80 lb.ft. (108Nm)					

General

Width (in/cm)	48 / 121.9
Length (in/cm)	125 / 317.5
Height (in/cm)	48 / 121.9
Estimated Dry Weight (lb/kg)	485 / 220.2
Fuel (Gallons / Liters)	11.7 / 44.3
Oil (Quarts / Liters)	3.4 / 3.2
Cooling System Capacity (Quarts / Liters)	6.3 / 6
Brake Fluid	DOT 4
Drive Belt Part Number Width (inches / cm) Side Angle Circumference (inches / cm) Center Distance (inches / cm)	3211080 1.438 / 3.65 28_ 46.625 / 118.4 11.5 / 29.2
Chaincase Center Distance (inches) Top Gear (Stock) Bottom Gear (Stock) Chain (Stock) Gear Lube Capacity (oz / ml) Reverse System	8.373 22 39 76 Polaris Synthetic 11 / 325.3 Perc

Electrical

Alternator Output Operating Voltage Watts @ 13.5 Vdc (Total)	13.5 - 14.5 Vdc 400
Ignition Timing	18_ @1700 RPM Coolant Temp = 120_F (49_C)
Spark Plug Gap in.(mm)	.027 (.70)
Spark Plug	Champion RN57YCC

Track

Width - Inches (cm)	15 (38)
Length - Inches (cm)	144 (366)
Lug Height - Inches (cm)	1.25 (3.175) (STD.) 1.50 (3.8) (OPT.)
Track tension sag in/cm with 10 lbs/4.54kg placed 16 in/ 40cm ahead of rear idler shaft	3/8" - 1/2" (1 - 1.3cm)

Front Suspension

Suspension Type	IQ 42.5
Shocks	Fox HPG w/IFP (STD.) (Rebuildable) Fox Compression Adj. Remote Reservoir HPG (OPT.) (Rebuildable)
IFS Spring Rate lbs/in (N/mm)	100 (17.5)
Spring Installed Length Inches (cm)	10.55 (26.8)
Front Vertical Travel Inches (cm)	10 (25.4)
Ski Center Distance Inches (cm)	42.5 (108)
Camber Inches (cm)	2.25 ± 0.31 (57 ± 7.9)
Toe Out Inches (cm)	0 - 0.12 (0 - 0.31)

Rear Suspension

Suspension Type	IQ 144
Front Track Shock (FTS)	Fox HPG w/IFP (Rebuildable)
FTS Spring Rate lbs/in (N/mm)	170 (29.75)
FTS Spring Installed Length Inches (cm)	7.25 (18.4)
Rear Track Shock (RTS)	Fox Compression Adjustable Remote Reservoir HPG (Rebuildable)
Torsion Springs	.359 Square / 77_ (Stock) .347 / 77_ / (Soft) - PN 7041627 - 067 - PN 7041628 - 067 .375 / 77_ / (Firm) - PN 7041942 - 067 - PN 7041943 - 067
Rear Travel Inches (cm)	13.9 (35.3)

Model Specifications

2007 600 HO IQ LX CFI

Model Number: S07PD6HS / S07PD6HE

Engine

Engine Type	Liberty Liquid-Cooled / Case Reed Induction
Model Number	S3206-6044-PF6H
Displacement / # Cylinders	599cc / 2
Bore (inches/mm)	3.04 / 77.25
Stroke (inches/mm)	2.52 / 64
Piston to Cylinder Clearance (inches/mm)	.004 - .006 / .105 - .159
Installed Ring Gap (inches / mm)	.014 - .020 / .356 - .508
Operating RPM $\pm$ 200	8250
Idle RPM	1700
Engagement RPM $\pm$ 200	3800
Exhaust Valve Spring	Purple

Fuel Delivery

Type	Cleanfire Direct Injection
Throttle Body Marking	1203213
Throttle Body Bore	46mm
TPS Voltage @ Idle	0.95 +/- 0.01 Vdc
Fuel Pressure - PSI (bar)	58 (4.0)
Recommended Fuel Octane (R+M/2)	91 Non-Oxygenated

Clutch Settings

ALTITUDE meters (feet)	DRIVE CLUTCH		DRIVEN CLUTCH		
	Shift Weight	Clutch Spring	Clutch Spring	Driven Helix	Gearing
0-600 (0-2000)	10-62	BLK / GRN (120 / 340) (7042083)	RED/BLK (140 / 240) (7043058)	64/42.36 LW ER	22:39-76
600-1200 (2000-4000)	10-60			56/42 - .36 LW ER	
1200-1800 (4000-6000)	10-58				22:40-76
1800-2400 (6000-8000)	10-56				
2400-3000 (8000-10000)	10-54				20:41-76
3000-3600 (10000-12000)	10-AL				
Drive Clutch Bolt Torque: 80 lb.ft. (108Nm)					

General

Width (in/cm)	48 / 121.9
Length (in/cm)	115 / 292.1
Height (in/cm)	48 / 121.9
Estimated Dry Weight (lb/kg)	505 / 229.3
Fuel (Gallons / Liters)	11.7 / 44.3
Oil (Quarts / Liters)	3.4 / 3.2
Cooling System Capacity (Quarts / Liters)	6.3 / 6
Brake Fluid	DOT 4
Drive Belt Part Number	3211080
Width (inches / cm)	1.438 / 3.65
Side Angle	28_
Circumference (inches / cm)	46.625 / 118.4
Center Distance (inches / cm)	11.5 / 29.2
Chaincase Center Distance (inches)	8.373
Top Gear (Stock)	22
Bottom Gear (Stock)	39
Chain (Stock)	76
Gear Lube	Polaris Synthetic
Capacity (oz / ml)	11 / 325.3
Reverse System	Perc

Electrical

Alternator Output Operating Voltage Watts @ 13.5 Vdc (Total)	13.5 - 14.5 Vdc 400
Ignition Timing	18_ @1700 RPM Coolant Temp = 120_F (49_C)
Spark Plug Gap in.(mm)	.027 (.70)
Spark Plug	Champion RN57YCC

Track

Width - Inches (cm)	15 (38)
Length - Inches (cm)	128 (325)
Lug Height - Inches (cm)	1 (2.5)
Track tension sag in/cm with 10 lbs/4.54kg placed 16 in/ 40cm ahead of rear idler shaft	7/8" - 1-1/8" (2.2 - 2.9cm)

Front Suspension

Suspension Type	IQ 42.5
Shocks	Ryde FX Gas Bag Compression Adjustable
IFS Spring Rate lbs/in (N/mm)	120 (21)
Spring Installed Length Inches (cm)	9.95 (25.3)
Front Vertical Travel Inches (cm)	9.92 (25.2)
Ski Center Distance Inches (cm)	42.5 (108)
Camber Inches (cm)	2.25 ± 0.31 (57 ± 7.9)
Toe Out Inches (cm)	0 - 0.12 (0 - 0.31)

Rear Suspension

Suspension Type	Fast M-10 128
Front Track Shock (FTS)	Ryde FX Gas Bag
FTS Spring Rate lbs/in (N/mm)	180 (31)
FTS Spring Installed Length Inches (cm)	8.5 (21.6)
Rear Track Shock (RTS)	Fox HPG w/IFP (Rebuildable)
Lower Outer Spring Rate lbs/in (N/mm)	715 (125)
Lower Inner Spring Rate lbs/in (N/mm)	425 (74.4)
Upper Spring Rate lbs/in (N/mm)	273 (48)
Rear Travel Inches (cm)	13 (33)

Model Specifications

2007 600 HO IQ Touring CFI

Model Number: S07PT6HS / S07PT6HE

Engine

Engine Type	Liberty Liquid-Cooled / Case Reed Induction
Model Number	S3206-6044-PF6H
Displacement / # Cylinders	599cc / 2
Bore (inches/mm)	3.04 / 77.25
Stroke (inches/mm)	2.52 / 64
Piston to Cylinder Clearance (inches/mm)	.004 - .006 / .105 - .159
Installed Ring Gap (inches / mm)	.014 - .020 / .356 - .508
Operating RPM $\pm$ 200	8250
Idle RPM	1700
Engagement RPM $\pm$ 200	3800
Exhaust Valve Spring	Purple

Fuel Delivery

Type	Cleanfire Direct Injection
Throttle Body Marking	1203213
Throttle Body Bore	46mm
TPS Voltage @ Idle	0.95 +/- 0.01 Vdc
Fuel Pressure - PSI (bar)	58 (4.0)
Recommended Fuel Octane (R+M/2)	91 Non-Oxygenated

Clutch Settings

ALTITUDE meters (feet)	DRIVE CLUTCH		DRIVEN CLUTCH		
	Shift Weight	Clutch Spring	Clutch Spring	Driven Helix	Gearing
0-600 (0-2000)	10-62	BLK / GRN (120 / 340) (7042083)	RED/BLK (140 / 240) (7043058)	64/42.36 LW ER	22:43-78
600-1200 (2000-4000)	10-60			56/42 - .36 LW ER	
1200-1800 (4000-6000)	10-58				
1800-2400 (6000-8000)	10-56				
2400-3000 (8000-10000)	10-54				21:44-78
3000-3600 (10000-12000)	10-AL				
Drive Clutch Bolt Torque: 80 lb.ft. (108Nm)					

General

Width (in/cm)	48 / 121.9
Length (in/cm)	129 / 327.7
Height (in/cm)	53 / 134.6
Estimated Dry Weight (lb/kg)	574 / 260.6
Fuel (Gallons / Liters)	11.7 / 44.3
Oil (Quarts / Liters)	3.4 / 3.2
Cooling System Capacity (Quarts / Liters)	6.3 / 6
Brake Fluid	DOT 4
Drive Belt Part Number	3211080
Width (inches / cm)	1.438 / 3.65
Side Angle	28_
Circumference (inches / cm)	46.625 / 118.4
Center Distance (inches / cm)	11.5 / 29.2
Chaincase Center Distance (inches)	8.373
Top Gear (Stock)	22
Bottom Gear (Stock)	43
Chain (Stock)	78
Gear Lube	Polaris Synthetic
Capacity (oz / ml)	11 / 325.3
Reverse System	Perc

Electrical

Alternator Output Operating Voltage Watts @ 13.5 Vdc (Total)	13.5 - 14.5 Vdc 400
Ignition Timing	18_ @1700 RPM Coolant Temp = 120_F (49_C)
Spark Plug Gap in.(mm)	.027 (.70)
Spark Plug	Champion RN57YCC

Track

Width - Inches (cm)	15 (38)
Length - Inches (cm)	136 (345)
Lug Height - Inches (cm)	1 (2.5)
Track tension sag in/cm with 10 lbs/4.54kg placed 16 in/ 40cm ahead of rear idler shaft	3/4" - 1.0"(1.9 - 2.5cm)

Front Suspension

Suspension Type	IQ 42.5
Shocks	Ryde FX Gas Bag Compression Adjustable
IFS Spring Rate lbs/in (N/mm)	120 (21)
Spring Installed Length Inches (cm)	9.95 (25.3)
Front Vertical Travel Inches (cm)	10 (25.4)
Ski Center Distance Inches (cm)	42.5 (108)
Camber Inches (cm)	2.25 ± 0.31 (57 ± 7.9)
Toe Out Inches (cm)	0 - 0.12 (0 - 0.31)

Rear Suspension

Suspension Type	Fast M-10 136
Front Track Shock (FTS)	Ryde FX Gas Bag
FTS Spring Rate lbs/in (N/mm)	220 (38.5)
FTS Spring Installed Length Inches (cm)	8.5 (21.6)
Rear Track Shock (RTS)	Fox HPG w/IFP (Rebuildable)
Lower Outer Spring Rate lbs/in (N/mm)	715 (125)
Lower Inner Spring Rate lbs/in (N/mm)	425 (74.4)
Upper Spring Rate lbs/in (N/mm)	273 (48)
Rear Travel Inches (cm)	14 (35.6)

Model Specifications

2007 700 HO IQ Dragon

Model Number: S07PC7JS / S07PC7JE

Engine

Engine Type	Liberty Liquid-Cooled / Case Reed Induction
Model Number	S3305-7044-PF7J
Displacement / # Cylinders	700cc / 2
Bore (inches/mm)	3.19 / 81
Stroke (inches/mm)	2.68 / 68
Piston to Cylinder Clearance (inches/mm)	.0044 - .0059 / .112 - .151
Installed Ring Gap (inches / mm)	.017 - .026 / .44 - .650
Operating RPM $\pm$ 200	8250
Idle RPM	1700
Engagement RPM $\pm$ 200	3800
VES Spring Color	Purple

Fuel Delivery

Type	Cleanfire Direct Injection
Throttle Body Marking	1203213
Throttle Body Bore	46mm
TPS Voltage @ Idle	0.95 +/- 0.01 Vdc
Fuel Pressure - PSI (bar)	58 (4.0)
Recommended Fuel Octane (R+M/2)	91 Non-Oxygenated

Clutch Settings

ALTITUDE meters (feet)	DRIVE CLUTCH		DRIVEN CLUTCH		
	Shift Weight	Clutch Spring	Clutch Spring	Driven Helix	Gearing
0-600 (0-2000)	10-64	DK BLU/WHT	RED/BLK (140 / 240) (7043058)	66/44-.46 LW ER	23:39-76
600-1200 (2000-4000)	10-62				
1200-1800 (4000-6000)	10-62	BLK / GRN (120 / 340) (7042083)		64/42-.36 LW ER	22:39-76
1800-2400 (6000-8000)	10-60				
2400-3000 (8000-10000)	10-58			56/42 - .36 LW ER	20:41-76
3000-3600 (10000-12000)	10-56				
Drive Clutch Bolt Torque: 80 lb.ft. (108Nm)					

General

Width (in/cm)	48 / 121.9
Length (in/cm)	115 / 292.1
Height (in/cm)	47 / 119.4
Estimated Dry Weight (lb/kg)	476 / 216.1
Fuel (Gallons / Liters)	10.8 / 40.9
Oil (Quarts / Liters)	3.4 / 3.2
Cooling System Capacity (Quarts / Liters)	6.3 / 6
Brake Fluid	DOT 4
Drive Belt Part Number Width (inches / cm) Side Angle Circumference (inches / cm) Center Distance (inches / cm)	3211115 1.460 / 3.7 26_ 46.77 / 118.8 11.5 / 29.2
Chaincase Center Distance (inches) Top Gear (Stock) Bottom Gear (Stock) Chain (Stock) Gear Lube Capacity (oz / ml) Reverse System	8.373 23 39 76 Polaris Synthetic 11 / 325.3 Perc

Electrical

Alternator Output Operating Voltage Watts @ 13.5 Vdc (Total)	13.5 - 14.5 Vdc 400
Ignition Timing	18_ @1700 RPM Coolant Temp = 120_F (49_C)
Spark Plug Gap in.(mm)	.027 (.70)
Spark Plug	Champion RN57YCC

Track

Width - Inches (cm)	15 (38)
Length - Inches (cm)	121 (307)
Lug Height - Inches (cm)	1.25 (3.2)
Track tension sag in/cm with 10 lbs/4.54kg placed 16 in/ 40cm ahead of rear idler shaft	7/8" - 1-1/8" (2.2 - 2.9cm)

Front Suspension

Suspension Type	IQ 42.5
Shocks	Walker Evans w/IFP Remote Reservoir Compression Adjustable (Rebuildable)
IFS Spring Rate lbs/in (N/mm)	100 (17.5)
Spring Installed Length Inches (cm)	10.30 (28.4)
Front Vertical Travel Inches (cm)	10.55 (26.8)
Ski Center Distance Inches (cm)	42.5 (108)
Camber Inches (cm)	2.25 ± 0.31 (57 ± 7.9)
Toe Out Inches (cm)	0 - 0.12 (0 - 0.31)

Rear Suspension

Suspension Type	IQ 121
Front Track Shock (FTS)	Walker Evans w/IFP Remote Reservoir Compression Adjustable (Rebuildable)
FTS Spring Rate lbs/in (N/mm)	130 - 270 (23 - 47)
FTS Spring Installed Length Inches (cm)	7.97 (20.2)
Rear Track Shock (RTS)	Walker Evans w/IFP Remote Reservoir Compression Adjustable (Rebuildable)
Torsion Spring Tail Angle	.347" 80_
Rear Travel Inches (cm)	13 (33)

Model Specifications

2007 700 HO RMK Dragon

Model Number: S07PL7JS / S07PL7JE

Engine

Engine Type	Liberty Liquid-Cooled / Case Reed Induction
Model Number	S3322-7044-PF7J
Displacement / # Cylinders	700cc / 2
Bore (inches/mm)	3.19 / 81
Stroke (inches/mm)	2.68 / 68
Piston to Cylinder Clearance (inches/mm)	.0042 - .006 / .109 - .163
Installed Ring Gap (inches / mm)	Upper: .010 - .018 / .25 - .45 Lower: .014 - .020 / .35 - .50
Operating RPM $\pm$ 200	8250
Idle RPM	1700
Engagement RPM $\pm$ 200	3800
VES Spring Color	Purple

Fuel Delivery

Type	Cleanfire Direct Injection
Throttle Body Marking	1203213
Throttle Body Bore	46mm
TPS Voltage @ Idle	0.95 +/- 0.01 Vdc
Fuel Pressure - PSI (bar)	58 (4.0)
Recommended Fuel Octane (R+M/2)	91 Non-Oxygenated

Clutch Settings

ALTITUDE meters (feet)	DRIVE CLUTCH		DRIVEN CLUTCH		
	Shift Weight	Clutch Spring	Clutch Spring	Driven Helix	Gearing
0-600 (0-2000)	10-66	BLK / GRN (120 / 340) (7042083)	BLACK (155 / 222)	56/42 .36 LWT ER	20:41-76
600-1200 (2000-4000)	10-64				
1200-1800 (4000-6000)	10-62				
1800-2400 (6000-8000)	10-60				
2400-3000 (8000-10000)	10-58				
3000-3600 (10000-12000)	10-56				
Drive Clutch Bolt Torque: 80 lb.ft. (108Nm)					

General

Width (in/cm)	46.5 / 118.1
Length (in/cm)	130 / 330.2
Height (in/cm)	49 / 124.5
Estimated Dry Weight (lb/kg)	478 / 217
Fuel (Gallons / Liters)	12 / 45.4
Oil (Quarts / Liters)	3.4 / 3.2
Cooling System Capacity (Quarts / Liters)	6.3 / 6
Brake Fluid	DOT 4
Drive Belt Part Number	3211115
Width (inches / cm)	1.460 / 3.7
Side Angle	26°
Circumference (inches / cm)	46.77 / 118.8
Center Distance (inches / cm)	11.5 / 29.2
Chaincase Center Distance (inches)	8.373
Top Gear (Stock)	20
Bottom Gear (Stock)	41
Chain (Stock)	76
Gear Lube	Polaris Synthetic
Capacity (oz / ml)	11 / 325.3
Reverse System	Perc

Electrical

Alternator Output Operating Voltage Watts @ 13.5 Vdc (Total)	13.5 - 14.5 Vdc 400
Ignition Timing	18° @1700 RPM Coolant Temp = 120°F (49°C)
Spark Plug Gap in.(mm)	.027 (.70)
Spark Plug	Champion RN57YCC

Track

Width - Inches (cm)	15 (38)
Length - Inches (cm)	155 (393.7)
Lug Height - Inches (cm)	2.4 (6.1)
Track tension sag in/cm with 10 lbs/4.54kg placed 16 in/ 40cm ahead of rear idler shaft	3/8" - 1/2" (1 - 1.3cm)

Front Suspension

Suspension Type	IQ RMK
Shocks	Walker Evans Air
Oil Volume	95cc
Nitrogen Charge	
Stock	215 psi
Optional	220 - 225 psi
Front Vertical Travel Inches (cm)	9 (22.9)
Ski Center Distance Inches (cm)	39(99.1) / 40(101.6) / 41(104.1)
Setup Width	38.67 (98.2)
Camber Inches (cm)	2.17 ± 0.31 (55 ± 0.79)
Toe Out Inches (cm)	0 - 0.12 (0 - 0.31)

Rear Suspension

Suspension Type	IQ RMK 155
Front Track Shock (FTS)	Walker Evans Air
Oil Volume	70cc
FTS Nitrogen Charge	
Stock	215 psi
Optional	210 - 220 psi
Rear Track Shock (RTS)	Walker Evans w/IFP
RTS Nitrogen Charge	200 psi
Torsion Springs	.359 Square / 77_ (Stock) .347 / 77_ / (Soft) - PN 7041627 - 067 - PN 7041628 - 067 .375 / 77_ / (Firm) - PN 7041942 - 067 - PN 7041943 - 067
Rear Travel Inches (cm)	15.5 (39.4)

Model Specifications

2008 IQ Shift

Model Number: S08PB6FS / S08PB6FE

Engine

Engine Type	Liberty Liquid-Cooled / Case Reed Induction
Model Number	S3466-6044-PU6F
Displacement / # Cylinders	599cc / 2
Bore (inches/mm)	3.04 / 77.25
Stroke (inches/mm)	2.52 / 64
Piston to Cylinder Clearance (inches/mm)	.004 - .006 / .105 - .159
Installed Ring Gap (inches / mm)	.014 - .020 / .0356 - .508
Operating RPM $\pm$ 200	8100
Idle RPM	1700
Engagement RPM $\pm$ 200	3800
Exhaust Valve Spring	Pink

Carburetor Settings

Type	Mikuni TM38
Main Jet	400
Pilot Jet	45
Jet Needle/Clip position	9DGN6-57 / 3
Needle Jet	P-8
Throttle Gap (Under Cutaway) (in/mm)	.082 / 2.1
Cutaway	2.0
Valve Seat	1.5
Starter Jet	145
Pilot Air Jet	1.0
Fuel screw (Turns Out)	1.0
Recommended Fuel Octane (R+M/2)	91 (Non-Oxygenated)

Carburetor Jetting

Altitude Meters (feet)	Ambient Temperature							
	< -25°F / < -35°C	-30°F to -10°F / -34°C to -23°C	-15°F to +5°F / -26°C to -15°C	0°F to +20°F / -18°C to -7°C	+15°F to +35°F / -9°C to +2°C	+30°F to +50°F / 1°C to +10°C	+45°F to +65°F / +7°C to +18°C	> +60°F / > +16°C
0-600 (0-2000)	440 #3	430 #3	420 #3	400 #3	390 #3	380 #2	370 #2	360 #1
600-1200 (2000-4000)	410 #3	400 #3	390 #3	370 #3	360 #2	350 #2	340 #1	330 #1
1200-1800 (4000-6000)	370 #3	360 #2	350 #2	340 #2	330 #2	320 #1	310 #1	300 #1
1800-2400 (6000-8000)	340 #3	320 #2	310 #2	300 #2	280 #2	280 #1	270 #1	260 #1
2400-3000 (8000-10,000)	310 #2	300 #2	290 #2	280 #1	270 #1	260 #1	250 #1	240 #1
3000-3700 (10,000-12,000)	290 #2	280 #2	270 #1	250 #1	240 #1	230 #1	220 #1	210 #1

When using non oxygenated fuel with a RON greater than 93, decrease the main jet number in the above chart by 10 and raise the E-clip one position. If the chart recommends clip #1, install washer on top when using RON 93.

Clutch Settings

ALTITUDE meters (feet)	DRIVE CLUTCH		DRIVEN CLUTCH		
	Shift Weight	Clutch Spring	Clutch Spring	Driven Helix	Gearing
0-600 (0-2000)	10-62	BLK / GRN (120 / 340) (7042083)	RED/BLK (140 / 240) (7043058)	64/42.36 LW ER	23:39-76
600-1200 (2000-4000)	10-60			56/42 - .36 LW ER	22:39-76
1200-1800 (4000-6000)	10-58				22:40-76
1800-2400 (6000-8000)	10-56				
2400-3000 (8000-10,000)	10-54				20:41-76
3000-3600 (10,000-12,000)	10-AL				

Drive Clutch Bolt Torque: 50 lb.ft. (68Nm)

General

Width (in/cm)	48.5 / 123.2
Length (in/cm)	115 / 292.1
Height (in/cm)	48 / 121.9
Estimated Dry Weight (lb/kg)	466 / 211.6
Fuel (Gallons / Liters)	11.7 / 44.3
Oil (Quarts / Liters)	3 / 2.8
Cooling System Capacity (Quarts / Liters)	8.5 / 8
Brake Fluid	DOT 4
Drive Belt Part Number	3211122
Width (inches / cm)	1.460 / 3.7
Side Angle	26°
Circumference (inches / cm)	46.77 / 118.8
Center Distance (inches / cm)	11.5 / 29.2
Chaincase Center Distance (inches)	8.373
Top Gear (Stock)	23
Bottom Gear (Stock)	39
Chain (Stock)	76
Gear Lube	Polaris Synthetic
Capacity (oz / ml)	11 / 325.3
Reverse System	Perc

Electrical

Alternator Output Operating Voltage Watts @ 13.5 Vdc (Total)	13.5 - 14.5 Vdc 280
Ignition Timing	26° @3500 RPM (TPS Un-plugged)
Spark Plug Gap in.(mm)	.027 (.70)
Spark Plug	Champion RN57YCC
CDI Marking	4011033
Flywheel Marking	4010677

Track

Width - Inches (cm)	15 (38)
Length - Inches (cm)	121 (307)
Lug Height - Inches (cm)	.91 / (2.3)
Track tension sag in/cm with 10 lbs/4.54kg placed 16 in/ 40cm ahead of rear idler shaft	7/8" - 1-1/8" (2.2 - 2.9cm)

Front Suspension

Suspension Type	IQ 42.5
Shocks	Ryde FX MPV
IFS Spring Rate lbs/in (N/mm)	100 (17.5)
Spring Installed Length Inches (cm)	10.5 (26.67)
Front Vertical Travel Inches (cm)	10 (25.4)
Ski Center Distance Inches (cm)	42.5 (108)
Setup Width (cm)	41.16 (104.5)
Camber Inches (cm)	2.25 ± 0.31 (57 ± 7.9)
Toe Out Inches (cm)	0 - 0.12 (0 - 0.31)

Rear Suspension

Suspension Type	IQ 121
Front Track Shock (FTS)	Ryde FX MPV
FTS Spring Rate lbs/in (N/mm)	170 (29.75)
Rear Track Shock (RTS)	Ryde FX MPV
Torsion Springs	.347 Square / 80° (Stock) - PN 7043070 - 067 - PN 7043071 - 067 .347 Square / 77° (Soft) - PN 7043240 - 067 - PN 7043241 - 067 .359 Square / 12.5# (Firm) - PN 7043079 - 067 - PN 7043080 - 067
Rear Travel Inches (cm)	13.9 (35.3)

Model Specifications

2008 600 RMK 144 / 600 RMK Shift 155

Model Number:
600 RMK 144: S08PK6FS / S08PK6FE
600 RMK Shift 155: S08PM6FS

Engine

Engine Type	Liberty Liquid-Cooled / Case Reed Induction
Model Number	S3467-6044-PU6F
Displacement / # Cylinders	599cc / 2
Bore (inches/mm)	3.04 / 77.25
Stroke (inches/mm)	2.52 / 64
Piston to Cylinder Clearance (inches/mm)	.004 - .006 / .105 - .159
Installed Ring Gap (inches / mm)	.014 - .020 / .0356 - .508
Operating RPM $\pm$ 200	8100
Idle RPM	1500
Engagement RPM $\pm$ 200	3800
Exhaust Valve Spring	Pink

Carburetor Settings

Type	Mikuni TM38
Main Jet	280
Pilot Jet (Pj)	50
Jet Needle/Clip position	9DGN6-57 / 2
Needle Jet	P-8
Throttle Gap (Under Cutaway) (in/mm)	.125 / 3.2
Cutaway	2.5
Valve Seat	1.5
Starter Jet	145
Pilot Air Jet	.9
Fuel screw (Turns Out)	.5
Recommended Fuel Octane (R+M/2)	91 (Non-Oxygenated)

Carburetor Jetting

Altitude Meters (feet)	Ambient Temperature							
	< -25°F / < -35°C	-30°F to -10°F / -34°C to -23°C	-15°F to +5°F / -26°C to -15°C	0°F to +20°F / -18°C to -7°C	+15°F to +35°F / -9°C to +2°C	+30°F to +50°F / -1°C to +10°C	+45°F to +65°F / +7°C to +18°C	> +60°F / > +16°C
0-600 (0-2000)	440 #3	430 #3	420 #2	400 #2	390 #2	380 #2	370 #2	360 #1
600-1200 (2000-4000)	410 #3	400 #3	390 #2	370 #2	360 #2	350 #2	340 #2	330 #1
1200-1800 (4000-6000)	370 #3	360 #2	350 #2	340 #2	330 #2	320 #2	310 #1	300 #1
1800-2400 (6000-8000)	340 #3	320 #2	310 #2	300 #2	280 #2	280 #1	270 #1	260 #1
2400-3000 (8000-10,000)	310 55Pj #2	300 55Pj #2	290 55Pj #2	280 55Pj #2	270 55Pj #2	260 55Pj #1	250 55Pj #1	240 55Pj #1
3000-3700 (10,000-12,000)	290 55Pj #2	280 55Pj #2	270 55Pj #2	250 55Pj #1	240 55Pj #1	230 55Pj #1	220 55Pj #1	210 55Pj #1

When using non oxygenated fuel with a RON greater than 93, decrease the main jet number in the above chart by 10 and raise the E-clip one position. If the chart recommends clip #1, install washer on top when using RON 93.

Clutch Settings

ALTITUDE meters (feet)	DRIVE CLUTCH		DRIVEN CLUTCH		
	Shift Weight	Clutch Spring	Clutch Spring	Driven Helix	Gearing
0-600 (0-2000)	10-62	140 / 330 (7043342)	BLACK (155 / 222)	56/42 - .36 LW ER	19:41-76
600-1200 (2000-4000)	10-60				
1200-1800 (4000-6000)	10-58				
1800-2400 (6000-8000)	10-56				
2400-3000 (8000-10,000)	10-54				
3000-3600 (10,000-12,000)	10-AL				
Drive Clutch Bolt Torque: 50 lb.ft. (68Nm)					

General

Width (in/cm)	46.5 / 115.6
Length (in/cm)	124 / 315 (144) 129 / 327.7 (155)
Height (in/cm)	48 / 121.9
Estimated Dry Weight (lb/kg)	472 / 214.3 (144) 478 / 216.8 (155)
Fuel (Gallons / Liters)	11.5 / 43.5
Oil (Quarts / Liters)	3 / 2.8
Cooling System Capacity (Quarts / Liters)	144 = 6.25 / 6 155 = 6.5 / 6.1
Brake Fluid	DOT 4
Drive Belt Part Number Width (inches / cm) Side Angle Circumference (inches / cm) Center Distance (inches / cm)	3211115 1.460 / 3.7 26_ 46.77 / 118.8 11.5 / 29.2
Chaincase Center Distance (inches) Top Gear (Stock) Bottom Gear (Stock) Chain (Stock) Gear Lube Capacity (oz / ml) Reverse System	8.373 19 41 76 Polaris Synthetic 11 / 325.3 Perc

Electrical

Alternator Output Operating Voltage Watts @ 13.5 Vdc (Total)	13.5 - 14.5 Vdc 280
Ignition Timing	26_ @3500 RPM (TPS Un-plugged)
Spark Plug Gap in.(mm)	.027 (.70)
Spark Plug	Champion RN57YCC
CDI Marking	4011033
Flywheel Marking	4010677

Track

Width - Inches (cm)	15 (38)
Length - Inches (cm)	144 (365.7) 155 (393.7)
Lug Height - Inches (cm)	2.0 (5.08) (144) 2.4 (6) (155)
Track tension sag in/cm with 10 lbs/4.54kg placed 16 in/ 40cm ahead of rear idler shaft	3/8" - 1/2" (1 - 1.3cm)

Front Suspension

Suspension Type	IQ RMK
Shocks	Ryde FX
IFS Spring Rate lbs/in (N/mm)	100 (17.5)
Spring Installed Length Inches (cm)	10.35 (26.2)
Front Vertical Travel Inches (cm)	9 (22.9)
Ski Center Distance Inches (cm) Setup Width	39 - 40 - 41 (99.1 - 101.6 - 104.1) 38.67 (98.2)
Camber Inches (cm)	2.17 ± 0.31 (55 ± 7.9)
Toe Out Inches (cm)	0 - 0.12 (0 - 0.31)

Rear Suspension

Suspension Type	IQ RMK 144 / 155
Front Track Shock (FTS)	Ryde FX
FTS Spring Rate lbs/in (N/mm)	190 (33)
Rear Track Shock (RTS)	Ryde AFX Compression Adjustable
Torsion Springs	.359 Square / 77_ (Stock) .347 / 77_ / (Soft) - PN 7041627 - 067 - PN 7041628 - 067 .375 / 77_ / (Firm) - PN 7041942 - 067 - PN 7041943 - 067
Rear Travel Inches (cm)	14.5 (36.8) (144) 15.5 (39.4) (155)

Model Specifications

2008 600 Dragon IQ

Model Number:
S08PP6HS / S08PP6HE

Engine

Engine Type	Liberty Liquid-Cooled / Case Reed Induction
Model Number	S3468-6044-PU6H
Displacement / # Cylinders	599cc / 2
Bore (inches/mm)	3.04 / 77.25
Stroke (inches/mm)	2.52 / 64
Piston to Cylinder Clearance (inches/mm)	.004 - .006 / .105 - .159
Installed Ring Gap (inches / mm)	.014 - .020 / .356 - .508
Operating RPM $\pm$ 200	8250
Idle RPM	1700
Engagement RPM $\pm$ 200	3800
Exhaust Valve Spring	Purple

Fuel Delivery

Type	Cleanfire Direct Injection
Throttle Body Marking	1203213
Throttle Body Bore	46mm
TPS Voltage @ Idle	0.95 +/- 0.01 Vdc
Fuel Pressure - PSI (bar)	58 (4.0)
Recommended Fuel Octane (R+M/2)	91 Non-Oxygenated

Clutch Settings

ALTITUDE meters (feet)	DRIVE CLUTCH		DRIVEN CLUTCH		
	Shift Weight	Clutch Spring	Clutch Spring	Driven Helix	Gearing
0-600 (0-2000)	10-64	BLK / GRN (120 / 340) (7042083)	RED/BLK (140 / 240) (7043058)	56/42 - .36 LW-ER	23:39-76
600-1200 (2000-4000)	10-62				22:39-76
1200-1800 (4000-6000)	10-60				22:40-76
1800-2400 (6000-8000)	10-58				
2400-3000 (8000-10000)	10-56				20:41-76
3000-3600 (10000-12000)	10-AL				
Drive Clutch Bolt Torque: 80 lb.ft. (108Nm)					

General

Width (in/cm)	48 / 121.9
Length (in/cm)	115 / 292.1
Height (in/cm)	48.5 / 123.2
Estimated Dry Weight (lb/kg)	476 / 216.1
Fuel (Gallons / Liters)	11.7 / 44.3
Oil qts/l	3/2.8
Cooling System Capacity (Quarts / Liters)	8.5 / 8
Brake Fluid	DOT 4
Drive Belt Part Number	3211122
Width (inches / cm)	1.460 / 3.7
Side Angle	26_
Circumference (inches / cm)	46.77 / 118.8
Center Distance (inches / cm)	11.5 / 29.2
Chaincase Center Distance (inches)	8.373
Top Gear (Stock)	23
Bottom Gear (Stock)	39
Chain (Stock)	76
Gear Lube	Polaris Synthetic
Capacity (oz / ml)	11 / 325.3
Reverse System	Perc

Electrical

Alternator Output Operating Voltage Watts @ 13.5 Vdc (Total)	13.5 - 14.5 Vdc 400
Ignition Timing	18_ @1700 RPM Coolant Temp = 120_F (49_C)
Spark Plug Gap in.(mm)	.027 (.70)
Spark Plug	Champion RN57YCC

Track

Width - Inches (cm)	15 (38)
Length - Inches (cm)	121 (307.3)
Lug Height - Inches (cm)	1.25 (3.175)
Track tension sag in/cm with 10 lbs/4.54kg placed 16 in/ 40cm ahead of rear idler shaft	7/8" - 1-1/8"(2.2 - 2.9cm)

Front Suspension

Suspension Type	IQ 42.5
Shocks	Ryde FX Air 2.0
Air 2.0 Nitrogen Pressure 36mm Cylinder 47mm Cylinder	145 psi 60 psi
Front Vertical Travel Inches (cm)	10 (25.4)
Ski Center Distance Inches (cm) Setup Width	42.5 (108) 41.16 (104.5)
Camber Inches (cm)	2.25 ± 0.31 (57 ± 7.9)
Toe Out Inches (cm)	0 - 0.12 (0 - 0.31)

Rear Suspension

Suspension Type	IQ 121
Front Track Shock (FTS)	Ryde FX HPG w/IFP
FTS Spring Rate lbs/in (N/mm)	130 - 270 (23 - 47)
FTS Spring Installed Length (inches / cm)	7.97
Rear Track Shock (RTS)	Ryde FX Compression Adjustable w/Remote Res.
Torsion Springs	.347 Square / 80_ (Soft) - PN 7043070 - 067 - PN 7043071 - 067 .347 Square / 77_ (Softest) - PN 7043240 - 067 - PN 7043241 - 067 .359 Square / 12.5# (Stock) - PN 7043079 - 067 - PN 7043080 - 067
Rear Travel Inches (cm)	13.9 (35.3)

Model Specifications

2008 600 Switchback 600 Dragon Switchback

Model Number:
Base = S08PR6HS / S08PR6HE
Dragon = S08PS6HS / S08PS6HE

Engine

Engine Type	Liberty Liquid-Cooled / Case Reed Induction
Model Number	S3468-6044-PU6H
Displacement / # Cylinders	599cc / 2
Bore (inches/mm)	3.04 / 77.25
Stroke (inches/mm)	2.52 / 64
Piston to Cylinder Clearance (inches/mm)	.004 - .006 / .105 - .159
Installed Ring Gap (inches / mm)	.014 - .020 / .356 - .508
Operating RPM $\pm$ 200	8250
Idle RPM	1700
Engagement RPM $\pm$ 200	3800
Exhaust Valve Spring	Purple

Fuel Delivery

Type	Cleanfire Direct Injection
Throttle Body Marking	1203213
Throttle Body Bore	46mm
TPS Voltage @ Idle	0.95 +/- 0.01 Vdc
Fuel Pressure - PSI (bar)	58 (4.0)
Recommended Fuel Octane (R+M/2)	91 Non-Oxygenated

Clutch Settings

ALTITUDE meters (feet)	DRIVE CLUTCH		DRIVEN CLUTCH		
	Shift Weight	Clutch Spring	Clutch Spring	Driven Helix	Gearing
0-600 (0-2000)	10-64	BLK / GRN (120 / 340) (7042083)	RED/BLK (140 / 240) (7043058)	56/42 - .36 LW-ER	22:39-76
600-1200 (2000-4000)	10-62				
1200-1800 (4000-6000)	10-60				22:40-76
1800-2400 (6000-8000)	10-58				
2400-3000 (8000-10000)	10-56				20:41-76
3000-3600 (10000-12000)	10-AL				
Drive Clutch Bolt Torque: 80 lb.ft. (108Nm)					

General

Width (in/cm)	48 / 121.9
Length (in/cm)	120 / 308.4
Height (in/cm)	48.5 / 123.2
Estimated Dry Weight (lb/kg)	490 (222.5) 494 (224.3) Dragon
Fuel (Gallons / Liters)	11.7 / 44.3
Oil qts/l	3/2.8
Cooling System Capacity (Quarts / Liters)	9.0 / 8.5
Brake Fluid	DOT 4
Drive Belt Part Number Width (inches / cm) Side Angle Circumference (inches / cm) Center Distance (inches / cm)	3211122 1.460 / 3.7 26_ 46.77 / 118.8 11.5 / 29.2
Chaincase Center Distance (inches) Top Gear (Stock) Bottom Gear (Stock) Chain (Stock) Gear Lube Capacity (oz / ml) Reverse System	8.373 23 39 76 Polaris Synthetic 11 / 325.3 Perc

Electrical

Alternator Output Operating Voltage Watts @ 13.5 Vdc (Total)	13.5 - 14.5 Vdc 400
Ignition Timing	18_ @1700 RPM Coolant Temp = 120_F (49_C)
Spark Plug Gap in.(mm)	.027 (.70)
Spark Plug	Champion RN57YCC

Track

Width - Inches (cm)	15 (38)
Length - Inches (cm)	136 (345.4)
Lug Height - Inches (cm)	1.25 (3.175)
Track tension sag in/cm with 10 lbs/4.54kg placed 16 in/ 40cm ahead of rear idler shaft	7/8" - 1-1/8" (2.2 - 2.9cm)

Front Suspension

Suspension Type	IQ 42.5
Shocks Base Dragon	Ryde FX HPG w/IFP Ryde FX Air 2.0
IFS Spring Rate lbs/in (N/mm)	100 (17.5)
Spring Installed Length Inches (cm)	10.55 (26.8)
Air 2.0 Nitrogen Pressure 36mm Cylinder 47mm Cylinder	145 psi 60 psi
Front Vertical Travel Inches (cm)	10 (25.4)
Ski Center Distance Inches (cm) Setup Width	42.5 (108) 41.16 (104.5)
Camber Inches (cm)	2.25 ± 0.31 (57 ± 7.9)
Toe Out Inches (cm)	0 - 0.12 (0 - 0.31)

Rear Suspension

Suspension Type	IQ 136 Coupled
Front Track Shock (FTS)	Ryde HPG w/IFP
FTS Spring Rate lbs/in (N/mm)	130 - 270 (23 - 47)
FTS Spring Installed Length (inches / cm)	7.97
Rear Track Shock (RTS) Base Dragon	Fox PS5 Ryde FX Compression Adjustable w/Remote Res.
Torsion Springs	.347 Square / 80_ (Soft) - PN 7043070 - 067 - PN 7043071 - 067 .347 Square / 77_ (Softest) - PN 7043240 - 067 - PN 7043241 - 067 .359 Square / 12.5# (Stock) - PN 7043079 - 067 - PN 7043080 - 067
Rear Travel Inches (cm)	14 (35.5)